The Washington Post

Search for more humane nuclear weapon led to neutron bomb

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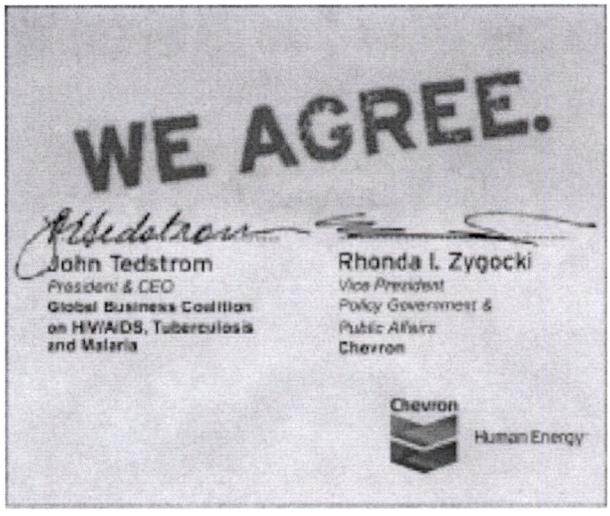

By T. Rees Shapiro
Washington Post Staff Writer
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Sam Cohen, 89, a nuclear physicist who was credited with developing the concept of the neutron bomb, designed to inflict mass radiation casualties without causing significant damage to buildings and infrastructure, died Nov. 28 at his home in Brentwood, Calif. He had complications from cancer surgery.

Mr. Cohen, a retired nuclear weapons analyst, spent most of his career working for the Rand Corp. think tank and other government contractors.

Often called an enhanced radiation weapon, the neutron bomb was a variant form of the conventional nuclear bomb but channeled more of its energy into lethal rays and particles.

According to Richard Rhodes, Pulitzer Prize-winning author of "The Making of the Atomic Bomb," the neutron bomb seemed desirable to Western military planners for placement in Europe during the Cold War as a deterrent to a large-scale land attack by Soviet forces.

It seemed suited, Rhodes said, "to kill more Russians than Europeans" and leave buildings intact.

On the other hand, some strategists feared that the bomb, by causing less collateral damage to cities and civilian populations, might reduce the inhibitions against use of nuclear weapons.

It was perhaps ironic that while the neutron bomb became known for its potential deadliness, Mr. Cohen said he had conceived it as a means of avoiding the human misery he had once witnessed in wartime.

The inventor of the weapon that created debate at the highest levels was a maverick nuclear physicist who never received an advanced degree but was recognized for his creativity - and known for his demanding, insistent nature.

In the late 1950s, he performed all of the calculations for the neutron bomb with pencil, paper and a slide rule his father had given him on his 15th birthday.

As a veteran of World War II's Manhattan Project, Mr. Cohen touted his invention as a humane advance over the weapons produced in that program, and their successors.

Those weapons, he said, were imprecise and caused excessive destruction. The neutron bomb, on the

other hand, was a "moral weapon that conformed to the Christian 'just war' principles," he said, "because it can be used to discriminate between enemy miltary personnel and innocent civilians."

Soviet Premier Nikita Krushchev, on the other hand, once said the neutron bomb was built "to kill a man in such a way that his suit will not be stained with blood, in order to appropriate the suit."

Samuel Theodore Cohen was born Jan. 25, 1921, in Brooklyn, N.Y., and grew up in Los Angeles, where his father worked as a carpenter for movie studios.

He received a physics degree in 1942 from the University of California at Los Angles, where he worked part-time on a grounds crew with an up-and-coming athlete named Jackie Robinson and dug graves on the side at a local cemetery.

Afterward, Mr. Cohen worked in the vast effort to build the first atomic bombs. His work with the Manhattan Project involved studies of neutrons, potentially deadly nuclear particles emitted in atomic explosions.

Mr. Cohen said he came up with his idea for the neutron bomb after seeing the devastating effects of conventional mortar fire during a visit to Seoul during the Korean War. He talked of a "lunar landscape" in which abandoned children drank from sewage- filled gutters.

Rather than "shelling and bombing cities to smithereens and wrecking the lives of their surviving inhabitants," Mr. Cohen later wrote, "might there be some kind of nuclear weapon that could avoid all this?"

The solution, he added, could be "a low-yield anti-personnel nuclear weapon where radiation would be the dominant effect."

At Rand in 1958, Mr. Cohen expanded on his ideas for such a weapon, which became known as the neutron bomb.

An early marriage ended in divorce.

Mr. Cohen's survivors include his wife of 50 years, Margaret Munnemann Cohen of Brentwood and their three children, Thomas Cohen and Paul Cohen, both of Los Angeles, and Carla Nagler of Santa Fe, N.M.; and three grandchildren.

Mr. Cohen admitted he was "no Mother Teresa" and said he was "aware that millions of people around the world" regarded him "as the devil incarnate for having invented such a fiendish weapon as the neutron bomb."

Still, he said that what he saw on his wartime visit to Seoul provided a turning point in his life and that his experiences from that trip were singed into his memory.

"I have to tell you that watching these wretched human beings really got to me," he wrote. "For the first time in my life I realized there was a difference between watching the war on Fox Movietone news at the theater and watching it without a commentator and somber musical background."

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SECRECY NEWS
from the FAS Project on Government Secrecy
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SAM COHEN'S SHAME

"Are you in the mood for another nuclear security tale? Great! This one has to do with one of the worst security violations I've ever committed. It could have gotten me and some Air Force officers in a real pickle...."

These lines could only have been written by someone who was in a position to commit serious security violations but who also recognizes that, outside of a certain core of genuinely sensitive information, security policy is essentially a bureaucratic game that cannot be taken very seriously.

In this case, the lines come from nuclear weaponeer Sam Cohen's memoir "Shame: Confessions of the Father of the Neutron Bomb," published last year by the vanity press Xlibris.

Since this book seems to have gone completely unnoted, unreviewed, and unread, Secrecy News will take a moment to call attention to its peculiar merits.

"Shame" is not a good book in any conventional sense. It is long, whiny, profane, and self-indulgent. It seems to have escaped editing altogether. Part reminiscence, part crank manifesto, it is a mess. But it is an honest and compelling mess that students of nuclear history will not want to miss.

Some of its many noteworthy features include these:

- Cohen combines an anarchic late 20th century sensibility with a first-person recollection of nuclear history dating back to the earliest days of the atomic age. No one else would be likely to tell you, for example, that Ted Hall (who was later discovered to have been a Soviet spy during the Manhattan Project) had terrible body odor. Cohen presents fresh, irreverent anecdotes concerning Robert Oppenheimer, Herman Kahn, John von Neumann, Bernhard Schriever, and various other cold war luminaries.

- In a claim that even the most facile critics of nuclear weapons would hesitate to make, he suggests that his own work on nuclear weapons development can be traced back to the abuse he suffered as a child due to his mother's bizarre views on health and nutrition, including a tyrannical toilet training regime.

- He provides what most will consider a funhouse mirror version of critical cold war events. The great H-bomb debate, as he witnessed it, was "a farce." The mysterious

1979 flash that is often attributed to a clandestine nuclear explosive test conducted by Israel and South Africa was actually caused, he conjectures, by a secret French nuclear test. China didn't steal the secrets of the neutron bomb; the U.S. gave them away, he suggests. And, he says, TWA 800 might have been destroyed by an ultra low yield pure fusion weapon.

Cohen's most important extended theme, however, is the corruption of U.S. nuclear weapons policy.

"The greater danger to security came not so much from those who carelessly or even purposefully let out nuclear secrets, but from those, in and out of the government, with full clearances, who fabricated and distorted nuclear policy issues for political or ideological reasons," he writes.

"It was this kind of nefarious and dangerous behavior by politicians and ideologues, in not giving the American people an honest account of our nuclear policies, that finally made me so intolerant, rebellious and openly contemptuous of the U.S. defense establishment that I was kicked out of it."

Cohen is an ultra-hawk when it comes to nuclear weapons. He considers Edward Teller a softie for endorsing a non-nuclear missile defense. Because of his extreme views, Cohen's book helps to illuminate the boundaries of acceptable opinion concerning nuclear weapons. His recurring clashes with Pentagon bureaucrats suggest how the nuclear policy process functions to moderate and exclude critical thought. (The barriers that render nuclear weapons largely invulnerable to democratic control are more systematically explored in Janne Nolan's 1989 book *Guardians of the Arsenal*.)

"Shame" by Sam Cohen is not sold in stores. But it may be purchased through the publisher here (use "book search"):

http://www.xlibris.com/html/bookstore.html

RUMSFELD COMMISSION CALLS FOR ANTI-SATELLITE TESTS

The report of a commission on military space policy that was issued last week is substantively the slightest of the several national security policy reports recently released. If not for the commission's erstwhile chairman -- Defense Secretary-designate Donald Rumsfeld -- it would probably merit little attention.

The report is premised upon the supposed "virtual certainty" of hostile action in space. In lieu of evidence, the authors state: "We know from history that every medium -- air, land and sea -- has seen conflict. Reality indicates that space will be no different." (p. 100)

Reality indicates that this is not a very persuasive argument. But for Rumsfeld, et al, the paucity of evidence of a threat only underscores the urgency of the matter. The United States could be "vulnerable to surprises in space... due to the lack of a validated, well-understood threat." (p. xiii)

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The report's single most provocative policy recommendation is for the renewal of destructive anti-satellite testing in space:

"The U.S. will require means of negating satellite threats.... The senior political and military leadership needs to test these capabilities in exercises on a regular basis, both to keep the armed forces proficient in their use and to bolster their deterrent effect on potential adversaries. Besides computer-based simulations and other wargaming techniques, these exercises should include 'live fire events'." The commission calls for establishment of testing ranges in space where these "live fire" tests could be conducted (p. 29).

The Report of the Commission to Assess United States National Security Space Management and Organization, released January 11, is available here (in a very large and unwieldy PDF format):

http://www.fas.org/spp/military/commission/report.htm

CIA OFFICIALS: "NOT INSANE"

Several readers objected to Secrecy News' use of the word "demented" to describe CIA officials who contend that declassification of 50 year old intelligence budget data could damage U.S. national security today. (SN, 1/11/01).

Most found the term intemperate and offensive. One reader argued that far from being demented, the officials who employ CIA's classification policies are eminently rational since these policies serve the Agency's interest in evading accountability and discouraging independent oversight.

Secrecy News is not acquainted with the CIA officials in question and had no way of knowing whether they are mentally impaired, whether they are willfully abusing their classification authority, or whether there is some other explanation at work. Consequently, we should not have used the word "demented."

It was also inappropriate to refer to the National Intelligence Distinguished Service Medal as "a measly award."